



**NORTHCENTRAL UNIVERSITY  
ASSIGNMENT COVER SHEET**

Student: **Michael Higley-Vance**

**THIS FORM MUST BE COMPLETELY FILLED IN**

**Follow these procedures:** If requested by your instructor, please include an assignment cover sheet. This will become the first page of your assignment. In addition, your assignment header should include your last name, first initial, course code, dash, and assignment number. This should be left justified, with the page number right justified. For example:

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**Save a copy of your assignments:** You may need to re-submit an assignment at your instructor's request. Make sure you save your files in accessible location.

**Academic integrity:** All work submitted in each course must be your own original work. This includes all assignments, exams, term papers, and other projects required by your instructor. Knowingly submitting another person's work as your own, without properly citing the source of the work, is considered plagiarism. This will result in an unsatisfactory grade for the work submitted or for the entire course. It may also result in academic dismissal from the University.

**EDU7702-8**

**Dr. Mark Kelso**

**Online Learning Communities**

**Activity #7: Hypothetical Research  
Design**

**Comments:**

**Faculty Use Only**

<Faculty comments here>

Hi Michael,

Excellent work. Nicely written and presented. I made a few comments that you really need to look at. NCU will NOT let you use an online survey with a case study. Also, I observed some small APA errors. This assignment was important because you will need to select your research

methodology. You may have already selected your methodology but in my experience, methodology selections can change! I made some various other comments for you to think about. Your score is 9.7. I deducted points for APA formatting. Please let me know if you have any questions. One more to go!

Mark

<Faculty Name>Kelso <Grade Earned>9.7 <Writing Score>3.0 <Date Graded>6/12/14

### Hypothetical Research Design: Qualitative & Quantitative

There are three main methods of research: qualitative, quantitative, and mixed methods. For the purposes of this paper only qualitative and quantitative will be discussed. Research is described as a “systematic process of collecting, analyzing, and interpreting data” from which an understanding is developed about a unique phenomenon (Leedy & Ormrod, 2010, p. 2). This paper aims to develop two hypothetical research designs using a qualitative and quantitative approach to the proposed research problem. [Excellent intro](#)

### **Proposed Qualitative Design**

#### **Research Design**

The proposed study in this section will consist of a qualitative, explanatory case study design. Given an explanatory case study, research is centered on gathering data and information for the purpose of studying one particular case or small group in its natural setting. In intrinsic case study research, case studies are utilized to help researchers understand a phenomenon associated with a situation or group (Hancock & Algozzine, 2011; Leedy & Ormrod, 2010). This intrinsic explanatory case study will observe a small group of middle school students, sixth through eighth grade, to establish a cause-and-effect relationship between behaviors and a blended classroom approach to teaching and learning. Student behaviors and perceptions will be monitored throughout the study. In particular, student behaviors will be recorded and student perceptions will be collected via anonymous [online surveys](#)<sup>[1]</sup>. Case studies are limited by time and situation observed (Cresswell, 2009) and therefore, is a suitable design for the middle school blended learning environment.

## Data Collection and Analysis

Case studies do not have a single data collection method and therefore can collect a detailed amount of information in a short period of time using various data collection designs (Cresswell, 2009). The purpose of this case study is to determine if blended learning environments and instruction positively effect student discipline behaviors and perceptions about learning. This case study will include two different pieces of data sets, behavioral observations and student perceptions. Behavioral data will be collected in two parts, the first through teacher behavioral logs and the second through administrative behavioral logs. Finally, student perceptions will be collected using an anonymous [online survey](#)[2].

Teachers will address and record students' negative behaviors by following four main teacher led discipline steps before referring the student to an administrator for an administrator issued discipline consequence. Teacher led discipline involves four teacher steps, which teachers must follow before referring a student to a school administrator. Teachers and administrators will use the district approved *Student Code of Conduct*, which outlines inappropriate student behaviors as these steps are followed. Teacher steps include: (1) students are given a warning for negative behaviors, (2) if negative behaviors continue students are given a redirect, which might include moving the student's seat or placing the student out into the hallway, (3) if negative behaviors continue after steps one and two have been followed the teacher should contact a parent either by phone or by sending home a behavior note, and finally (4) if negative student behaviors still continue the teacher should refer the student to an administrator for an administrator led discipline action.

Each week student behavior logs will be collected from teachers, which outlines the steps teachers have taken to address specific student negative behaviors. Additionally, a report from

the district's student data system will be collected, which outlines specific student behaviors that have been administratively addressed with a behavior consequence. A student survey [3] will be initiated every three weeks and will collect student perceptions about the blended learning environment and instruction. Conducting the survey every three weeks will help to identify changes and trends in student perceptions of the blended learning environment over time.

### Measurement

The first data piece will include direct teacher observations and administrative records of student misbehaviors as they are outlined in the *Student Code of Conduct*. In order to increase the fidelity and validity of teacher recorded observations an operational definition of identified misbehaviors must be developed. A behavior, which is described using observable terms, can be easily witnessed and recorded (Bicard, Bicard, & the IRIS Center 2012). Student misbehaviors and expected learning behaviors at the time of the observed misbehavior will be recorded, then transcribed and analyzed for commonalities and behavioral themes. Recorded student behaviors and learning contexts will help to gain additional insights into the learning environment regarding student learning motivation within the blended learning environment.

The second data piece will consist of ~~12~~twelve anonymous online student surveys [4] completed over the course of the school year. The anonymous surveys will be used to determine student satisfaction over time and identify trends in student perceptions of learning within the blended learning environment. Using open-coding system categories of satisfaction, dissatisfaction, motivation, and perceptions will be created to organize student survey responses. Several survey questions will be developed using a 5-point Likert scale[s], "I was an active participant in the blended learning environment". These scores will be correlated and delivered by an online survey tool. In addition, the information from two open-ended questions and one

conditional question will be analyzed and categorized to identify themes of satisfaction, dissatisfaction, and perception. Example questions are listed here:

- Open-ended question one – In what ways did you actively participate in the blended learning environment?
- Open-ended question two – If you believe your discipline behavior was positively affected, indicate why in the space provided. If you do not feel it was positively affected, please so indicate.
- Conditional question – If you indicated that you believe you would learn more in a traditional classroom environment indicate why in the space provided. If you did not participate please so indicate.

Additionally, question rankings and pre-determined answer selections will be included in the anonymous online student survey. These questions will be developed to narrow specific areas of satisfaction, dissatisfaction, and perception, “Please indicate the order you prefer to communicate with the teacher and others in class. Please indicate your first, second, and third choice.”

### **Proposed Quantitative Design**

#### **Research Design**

The proposed study in this section will consist of a correlational research design. Given a correlational design, research examines the extent to which one variable is related to differences in another variable (Leedy & Ormrod, 2010). In particular, do blended learning environments positively affect student behaviors? The proposed research will use a regression-discontinuity design (RDD), which will help determine, through a pretest-posttest design, the casual effects blended learning have on student discipline. Unlike other research designs, the experimental group in RDD requires that learners will be assigned to the blended program based on a pre-

determined amount of discipline points earned during the prior school year. This criterion is what sets RD designs apart from other quasi-experimental strategies and is most appropriate when targeting a program towards participants who most need it (Trochim, 2006).

Blended and traditional classroom instruction is scheduled during the normal school year and during the normal school day of 7:00am to 2:30pm. The experimental group will be limited to ~~30~~<sup>thirty</sup> participants, which will consist of ~~10~~<sup>ten</sup> students from each grade level, sixth grade through eighth grade who meet the pre-determined discipline point requirement. The control group will consist of ~~10~~<sup>ten</sup> participants from each of the ~~three grade levels, sixth grade through eighth grade~~<sup>[6]</sup> who fall below the acceptable discipline point requirements. Teachers will address and record students' negative behaviors by following four main teacher led discipline steps outlined above in a previous section.

### **Data Collection and Analysis**

The purpose of this correlational study is to determine if blended learning environments and instruction positively affect student discipline behaviors and learning. The proposed quantitative study will include the collection of three different data sets: behavioral observations, student perceptions, and student achievement. Behavioral data will be collected in two parts, the first through teacher ~~behavioral logs~~<sup>[7]</sup> and the second through administrative behavioral electronic archives. Student perceptions will be the second data piece collected, which will use a relatively similar anonymous online survey given every three weeks and aligned with communicating student academic progress. The final data piece includes student academic success, which will be collected using student test scores from a variety of assessment practices.

Behavior logs will be collected weekly from teachers, which outlines the steps teachers have taken to address specific student negative behaviors and the context in which these

behaviors occurred. Additionally, a report from the district's archival system will be collected, which outlines specific student behaviors that have been administratively addressed with a behavior consequence. A student survey will be initiated every three weeks and will collect student perceptions about the blended learning environment and instruction using a checklist and rating scale. Finally, student data records will be collected from both the experimental and control groups to determine if there is a positive or negative correlation within the blended learning environment between student behaviors and student achievement. Collecting the information mentioned above will help to analyze and determine whether or not a blended learning environment positively or negatively affects student discipline behaviors.

### **Quantitative Research Variables**<sup>[8]</sup>

Variables are characteristics of some event, object, or person that can take on different values (Trochim & Donnelly, 2008). Quantitative variables consist of two categories, dependent and independent, these variables are measured in terms of numbers. Researchers often manipulate variables and when this happens, it is called an independent variable (Cozby, 2009). Independent variables are designed to help determine the effects on dependent variables. In general, an independent variable is manipulated and its effects on the dependent variable are measured. The independent variable for this study is the use of a blended learning environment where technology is used in conjunction with direct instruction. Additionally, a dependent variable is what the researcher presumes will be affected by the independent variable (Trochim & Donnelly, 2008). The measure of student achievement, a decrease in student misbehaviors, and student satisfaction are the dependent variables in this study.



## Measurement

Data will be collected for this research every three weeks and is aligned with the communication of student behavior and academic progress. The measurement instrument used in this quantitative study will be a multi-trait-multi-method approach. This method includes content and construct validity. Construct validity measures student behavioral and academic achievement, while construct validity measures student perceptions of the learning environment. Additionally, an ordinal scale of measurement will be used to compare the dependent and independent variables. More specifically, Spearman's nonparametric rank correlation coefficient will be used to measure the statistical dependence between the previously stated variables. A rank correlation scale assesses how well the relationship between two variables can be described. A perfect correlation of +1 or -1 occurs when each of the variables is a perfect function of the other. This correlation calculation is appropriate for the ordinal variables listed above in a previous section (Cozby, 2009; Leedy and Ormrod 2010).

The first data piece will include direct teacher observations [9] and administrative records of student misbehaviors. The second data piece will consist of ~~12~~twelve anonymous online student surveys completed over the course of the school year. The anonymous surveys will be used to collect data related to student satisfaction of learning within the blended learning environment. Several survey questions will be developed using a 5-point Likert scale. These scores will be correlated and delivered by an online survey tool. Additionally, question rankings and pre-determined answer selections will be included to narrow specific areas of satisfaction, dissatisfaction, and perception. The final data piece will consist of both the experimental and control student achievement scores, which will be collected and compared to determine the effectiveness of the blended learning environment. [Please see my comment below.](#)

Reference<sup>[10]</sup>

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- Hancock, D. R., & Algozzine, B. (2011). *Doing case study research: A particular guide for beginning researchers* (2nd ed.). New York, NY: Teachers College Press.
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